Applicant : Rikihiro Iida
Serial No. : 09/781,049
Filed : February 9, 2001
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Attorney's Docket No.: 10830-054001 / A36-
129092M/NY

REMARKS

Claims 1-3 are pending.

FIG. 4 has been amended by adding the legend "Prior Art" as required by the Examiner.

Applicant thanks the Examiner for the courtesy of the telephone conference on August 10, 2004 to discuss the pending claims and the cited references.

During the telephone conference with the Examiner on August 10, 2004, the Examiner seemed to suggest that the phrases calculating "an approximate temperature of the DFB laser" and calculating "an output level variation of the DFB laser" should be interpreted as if the claims read calculating "a value." That is incorrect. Not every value that is calculated is, or represents, "an approximate temperature of the DFB laser." Similarly, not every value that is calculated is, or represents, "an output level variation of the DFB laser." To interpret those phrases as if the claims recited calculating "a value" improperly ignores the words of the claims.

The claims were rejected as anticipated by U.S. Patent No. 6,653,846 (Kuo et al.) and by U.S. Patent No. 6,449,077 (Broutin '077). As discussed below, applicant respectfully requests reconsideration.

To anticipate a claim, a single prior art reference must disclose each and every limitation of the claimed subject matter either expressly or inherently. *See, e.g., Rockwell Int'l Corp. v. United States*, 47 USPQ2d 1027, 1031 (Fed. Cir. 1998). That is not the case here.

At page 5, par. 6 of the Office action, it is alleged (i) that the "approximate temperature" relied upon by the applicant in the pending claims is a predetermined value based on a set of tables which the CPU recalls depending on a desired output, and (ii) that that the Kuo et al. patent uses the same information in the form of mathematical equations, which inherently involve calculating an "approximate temperature" to obtain a "set temperature." Applicant respectfully disagrees.

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First, although the pending specification does disclose the use of information stored in tables (*see* FIG. 2), the CPU 9 does more than simply retrieve that information to obtain the approximate temperature. Examples of the "calculations" that may be performed by the CPU 9 in some implementations to obtain the approximate temperature and the temperature controlling value are indicated by (1) and (4) in the large box in the lower-center of FIG. 2.

Furthermore, solving equations (9) and (10) of the Kuo et al. patent (col. 5, lines 21-28) provides a closed form solution so that the desired output power and output wavelength can be set by one-time changes to the temperature and the bias current. The temperature change ΔT obtained by solving equation (10) does not result in both an "approximate temperature" and a "set temperature" as recited in the pending claims. At most, solving those equations could result in one of those temperatures.

Moreover, even if solving equation (10) through some iterative process required calculating a temporary value of ΔT, such a temporary value would not correspond to the use of the "approximate temperature" as recited in the pending claims (*i.e.*, using the approximate temperature to calculate an "output level variation" of the DFB laser, which, in turn, is used to calculate a value to "control the output level of the DFB laser," and then calculating the "set temperature" based, in part, on the calculated value).

At least for those reasons, the claims are not anticipated by the Kuo et al. patent.

The disclosure of the Broutin '077 patent is similar to U.S. Patent No. 6,400,737 (the Broutin '737 patent), which applicant previously addressed in its Appeal Brief filed in September 2003. (*Compare* FIGS. 1-2 of the Broutin '077 patent *with* FIG. 4 of the Broutin '737 patent.)

The Broutin '077 patent discloses a control system with a temperature-tuned, wavelength-stabilized laser module. The output of the laser 110 can be modified by adjusting its temperature through thermo-electric cooler (TEC) 120. The temperature of the laser may be monitored (col. 2, lines 39-40). A processor 160 generates a control signal 109 to control the TEC 120 or a bias signal to the laser 110.

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The Broutin '077 patent states that the processor may form the control signals 109, 119 "based on a variety of conventional algorithms." The details of such algorithms, however, are not disclosed by the Broutin '077 patent. In particular, there is absolutely no disclosure or suggestion in the Broutin '077 patent that the processor 160 performs the calculations recited in the pending claims, including calculating both an "approximate temperature" and a "set temperature."

At least for those reasons, the Broutin '077 patent does not anticipate the pending claims.

In view of the foregoing remarks, applicant requests reconsideration and withdrawal of the rejections of the claims.

Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date:_____8/17/04_____
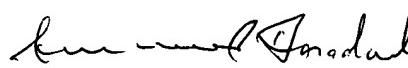
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